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LAW OFFICES
LEVENTHAL, SENTER & LERMAN P.L.L.C.
SUITE 600
2000 K STREET, N.W.
WASHINGTON, D.C. 20006-1809

TELEPHONE
(202) 429-8970

TELECOPIER
(202) 293-7783

WWW.LSL-LAW.COM

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March 30, 2000

(By Hand Delivery)

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Counter TW-A325
Washington, D.C. 20554

Re: ***Ex Parte*** **Presentation of Virtual Geosatellite, LLC in ET Docket No. 98-206; File Nos. SAT-AMD-19980318-00021, et seq. and SAT-LOA-19990108-00006; File Nos. SAT-AMD-19980630-00056, et seq. and SAT-AMD-19990108-00004; and File No. SAT-LOA-19990108-00007**

Dear Ms. Salas:

Pursuant to Section 1.1206 of the Commission's Rules, Virtual Geosatellite, LLC hereby submits twelve copies of the enclosed *ex parte* submission for inclusion in the files of the six above-referenced proceedings. The referenced application proceedings have been designated as "permit-but-disclose" proceedings for *ex parte* purposes. *See* Public Notice, Report No. SAT-00013 (released March 23, 1999).

Please direct any questions concerning this matter to the undersigned.

Respectfully submitted,

Stephen D. Baruch
Attorney for Virtual Geosatellite, LLC

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Enclosures

EX PARTE OR LATE FILED

March 30, 2000

By Hand Delivery:

Hon. William E. Kennard
Chairman
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: *Ex Parte* Presentation in ET Docket No. 98-206; File Nos. SAT-AMD-19980318-00021, et seq. and SAT-LOA-19990108-00006; File Nos. SAT-AMD-19980630-00056, et seq. and SAT-AMD-19990108-00004; and File No. SAT-LOA-19990108-00007

Dear Mr. Chairman:

By this letter, Virtual Geosatellite, LLC ("Virtual Geo") responds to a joint *ex parte* submission that was made by SkyBridge LLC ("SkyBridge") and The Boeing Company ("Boeing") on March 17, 2000 in the above-referenced proceeding.[1] The SkyBridge/Boeing Letter itself was filed as a response to a March 8, 2000 letter that was filed jointly by Virtual Geo and Northpoint Technology, Ltd. ("Northpoint").[2]

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[1] *See* Letter dated March 17, 2000, to William E. Kennard from Jeffery H. Olson, counsel to SkyBridge, and David A. Nall and Bruce A. Olcott, counsel for Boeing ("SkyBridge/Boeing Letter"). SkyBridge and Boeing are competing applicants with Virtual Geo for authorizations in the Commission's first non-geostationary fixed-satellite service ("NGSO FSS") processing round in the Ku-band frequencies, and recently announced that Boeing has become "a strategic launch provider and equity partner" in SkyBridge. *See* "Boeing Becomes Strategic Launch Partner and Shareholder of SkyBridge," Press Release dated December 9, 1999 (http://www.skybridgesatellite.com/news_in/index_news.htm). Although both companies found their equity alliance important enough to announce to the press, Virtual Geo has been unable to find any indication that SkyBridge or Boeing have amended their pending applications to report this new equity relationship to the Commission.

[2] Letter dated March 8, 2000, from David Castiel, President of Virtual Geosatellite, LLC, and Sophia Collier, President of Northpoint Technology, Ltd. ("Virtual Geo/Northpoint Letter"). Northpoint is the proponent of technology that would be used for the provision of fixed service in the 12.2-12.7 GHz portion of Ku-band pursuant to applications filed by the Broadwave family of companies.

1133 21st Street, N.W., Suite 800 Washington, D.C. 20036 Tel: 202-466-5599 Fax: 202-466-5595

virtual geo

Throughout the course of the rulemaking proceeding in ET Docket No. 98-206, Virtual Geo has promoted the establishment of policies that promote the most efficient uses of the Ku-band spectrum and associated orbital resources. Based on the views expressed by Virtual Geo and Northpoint in their joint letter, the Commission has an unprecedented opportunity to adopt a blueprint for establishing highly efficient shared use of the 12.2-12.7 GHz band by NGSO FSS systems that employ the orbital/spectrum approach used in Virtual Geo's innovative highly-elliptical, continent-following orbital configuration and terrestrial systems that use technology being promoted by Northpoint.[3]

The objections SkyBridge and Boeing express in their letter are based on parochial concerns that are inconsistent with the Commission's ultimate policy objectives in ET Docket No. 98-206, and thus cannot be credited. SkyBridge, in particular, is threatened by the understandings Virtual Geo has gained with respect to VIRGO™'s general compatibility with Northpoint. SkyBridge has long argued that it is either NGSO FSS systems or Northpoint in the 12.2-12.7 GHz band, but not both.

Recognizing that the views Virtual Geo expressed in the Virtual Geo/Northpoint Letter eviscerate its "us or them" tactic, SkyBridge, along with its new partner, launched a distastefully *ad hominum* attack on Virtual Geo. Virtual Geo will not stoop to such tactics, which it finds uncharacteristic of the high standards of discourse normally expected of The Boeing Company and of Alcatel (which is the corporation that possesses ultimate control of SkyBridge). Instead, it will use this letter to reiterate the policy cornerstones upon which the VIRGO™ system concept has been built, and to provide context for its landmark understanding with Northpoint.

Four key points follow:

1. The Ku-band frequencies sought for NGSO FSS use (including the 12.2-12.7 GHz band) at stake here, are in heavy use by geostationary ("GSO") systems. In respect of this situation, Virtual Geo designed the VIRGO™ system to be virtually transparent to co-frequency geostationary FSS and broadcasting-satellite service ("BSS") systems, as well as to co-frequency fixed service systems. VIRGO™, moreover, has the ability to share co-frequency with dozens of homogeneous systems consisting of hundreds of satellites using only the mitigation technique of

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[3] The Virtual Geo/Northpoint Letter indicated that, as a result of technical exchanges that had taken place over the preceding months, Virtual Geo and Northpoint "should be able to operate in a compatible manner in most circumstances, . . ." and that Virtual Geo's proposed VIRGO™ system would utilize user link spectrum assigned to the system outside of the 12.2-12.7 GHz band in circumstances where compatible operation proved not to be possible. Virgo/Northpoint Letter at 2. Virtual Geo and Northpoint expressly noted that the accommodation of the limited number of circumstances where compatible operation could not occur would not impose undue burdens upon either system, and would be a small price to pay in any event for the huge return the Commission and spectrum users would receive in terms of increased efficiency. *Id.* at 2-3.

homogeneity whereas SkyBridge cannot share with even one additional "SkyBridge-type" system unless severely capacity-robbing mitigation techniques are employed by both systems.[4]

2. Virtual Geo has been the only NGSO FSS system proponent that has at all times supported the Ku-band GSO community in its efforts to secure protection of both existing and future deployments from NGSO FSS systems. Unlike the systems proposed by either SkyBridge or Boeing, the VIRGO™ system can meet the most stringent of the constraints that have been urged by U.S. GSO systems, and thus supports their effort to maintain the health and integrity of this well-established and nationally-critical industry. Being a NGSO FSS system that can fully protect geostationary systems while maximizing sharing among NGSO FSS systems is a badge of honor that Virtual Geo wears proudly; it is not, despite the protestations of the proponents of systems that fall woefully short of Virtual Geo on both counts, anything akin to a legitimate basis for criticism.

3. Until it began exploring the technical details of Northpoint's proposed operations in recent months, Virtual Geo was openly critical of the Northpoint proposal. At the time it made the comments that SkyBridge and Boeing cite to in their letter, however, Virtual Geo knew significantly less than it does now about the manner in which Northpoint technology would operate. While some of the concerns Virtual Geo expressed on a macro level remain accurate – and a close look at the Virgo/Northpoint Letter will reveal quite clearly that this is not a sharing situation that is by any means ideal – the fact is that the required tradeoffs proved to be within acceptable bounds, and the upside in terms of efficient use of spectrum and provision of multiple new services to the public is unquestionably huge. Virtual Geo believes that its willingness to reexamine the sharing hurdles interposed by Northpoint in the face of a seemingly intractable impasse between SkyBridge/Boeing type NGSO FSS systems and Northpoint is representative of the proactive and constructive role that Virtual Geo has played throughout this process. **The goal of this proceeding is to arrive at a policy that serves the public interest in the efficient and expanding use of valuable broadband spectrum; the Virtual Geo/Northpoint Letter represents a significant contribution to that objective.**

4. SkyBridge/Boeing's assertions regarding Virtual Geo's supposed preparedness to "abandon 1/3 of its requested downlink capacity" are diametrically incorrect.[5] Indeed, it was out of a very real fear that the irrational intransigence of SkyBridge (and now Boeing) on the issue of sharing with Northpoint would effectively poison the well and lead to a foreclosure of NGSO

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[4] When it comes to the ability to share with heterogeneous systems, Virtual Geo is not radically different from SkyBridge, and readily acknowledges that sharing will be difficult, though possible and costly. The reality is, however, that the two architectures are competing on an equal procedural footing in an FCC processing round. It is in this last regard that Virtual Geo finds it ironic that SkyBridge and Boeing would choose to denigrate a competitor by asserting that the competitor's design is substantially superior to their own when it comes the ability to foster competitive multiple entry and efficient use of the orbital/spectrum resource.

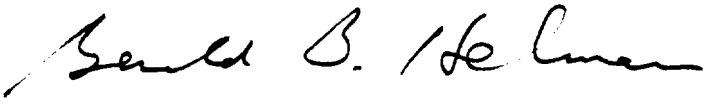
[5] Virtual Geo requested 1500 MHz of spectrum, from 11.2-12.7 GHz, for user downlinks. When SkyBridge/Boeing refer to 1/3 of its downlink capacity, the user link is what they appear to be referring to. Virtual Geo proposes additional spectrum (both at Ku-band and at C-band) for its VIRGO™ gateway downlink operations.

FSS use of 12.2-12.7 GHz in the United States that Virtual Geo stepped in to salvage use of this band for NGSO FSS systems. Again, the fact that Virtual Geo is different from SkyBridge in this regard is a plus, not a basis for criticism. As Virtual Geo made clear in its application, it requires 1500 MHz of user downlink spectrum at Ku-band. This requirement persists today, and is in no way altered by its view on sharing at 12.2-12.7 GHz with Northpoint-type fixed-service users. Thus, Virtual Geo did not "abandon 1/3 of its requested downlink capacity" at Ku-band, it preserved access to fully 50 percent more Ku-band downlink spectrum than would have been available if SkyBridge were permitted to continue its ill-conceived game of brinkmanship with regard to Northpoint. Virtual Geo cannot stand idly by while one (and now two) of its competitors play Russian roulette with the future of VIRGO™.

* * *

Virtual Geo was conceived for the purpose of establishing a maximally efficient – both technically and economically -- use of the orbital/spectrum resource. Its principals believe that they have developed a system concept that fully satisfies this objective, and that does so in a way that will culminate in a robustly competitive environment on both an intermodal and intramodal level. If the Commission is to remain faithful to the promotion of efficiency in spectrum use for the public interest, while concurrently ensuring protection of geostationary Ku-band satellite systems and maximizing multiple entry opportunities for NGSO FSS systems, it will embrace the forward-looking and forward-thinking approach put forth by Virtual Geo, and reject the negative entreaties being advanced by the proponents of systems whose technical service concepts have been overtaken by events and by better ideas.

Respectfully submitted,



Gerald B. Helman
Vice President, International and
Governmental Affairs
Virtual Geosatellite, LLC

cc: Commissioner Harold Furchtgott-Roth, FCC
Commissioner Susan Ness, FCC
Commissioner Michael Powell, FCC
Commissioner Gloria Tristani, FCC
Mr. Don Abelson, Bureau Chief, IB, FCC
Mr. Tom Tycz, Chief, Satellite & Radiocommunication Division, IB, FCC
Mr. Julius P. Knapp, Chief, Policy & Rules Division, OET, FCC
Ms. Sophia Collier, Northpoint Technology, Ltd.
Mr. Frank Weaver, The Boeing Company
Mr. Mark MacGann, SkyBridge, LLC